

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1. (cancelled)
2. (currently amended) A packet transmitting/receiving method for a computer system in which a plurality of packet transmitting/receiving units provided in correspondence to external modules are connected via a packet bus,
in which each of said packet transmitting/receiving units is constructed in such a manner that
when a packet received from said external module is transmitted, in the case where a transmitting request is issued and a transmission permission is obtained from a destination of a transmission, said packet is transmitted, and in the case where the transmission permission is not obtained, said packet is stored in a buffer and said unit is set into a transfer waiting state, and
when the transmitting request of the packet is received from another packet transmitting/receiving unit, if said unit is in a packet receivable state, a response of the transmission permission is made and the packet is received, and if said unit is in a packet unreceivable state, the response of the transmission permission is inhibited,
whereinwith respect to the packet which is transmitted/received by said packet transmitting/receiving unit, whether a kind of packet is an internal register access packet, a response system packet, or a command system packet is discriminated, if said packet kind is determined to be said internal register access packet, said packet is stored into a first packet buffer in which a first priority has been set, if said packet kind is determined to be said response system packet, said packet is stored into a second packet buffer in which a second priority has been set, and further, if said packet kind is determined to be said command system packet, said packet is stored into a third packet buffer in which a third priority has been set,
in the transfer waiting state where the command system packet to a certain transmission destination has been stored in said third packet buffer, in the case where the internal register

access packet to the same transmission destination is received from said external module and stored in said ~~first~~second packet buffer, said packet transmitting/receiving unit removes the transfer waiting state of the command system packet of the low priority stored in said third packet buffer and transmits the response system packet of the high priority stored in said second packet buffer, and

in a response inhibiting state of the transmission permission caused by an error of the external module, in the case where the transmitting request of the internal register access packet of the highest priority is received, said packet transmitting/receiving unit on the transmission destination side makes a response of the transmission permission, receives the internal register access packet, and returns an error detail information packet showing an error state of the external module.

3. (previously presented) A method according to claim 2, wherein in the response inhibiting state of the transmission permission caused by the error of the external module, after the packet transmitting request is received, in the case where said packet transmitting request is withdrawn and the withdrawn packet transmitting request is subsequently again issued, said packet transmitting/receiving unit at said destination determines that said request is the transmitting request of said internal register access packet of the highest priority and makes a response of the transmission permission.

4. (cancelled)

5. (previously presented) A packet transmitting/receiving method for a computer system in which a plurality of packet transmitting/receiving units provided in correspondence to external modules are connected via a packet bus,

in which each of said packet transmitting/receiving units is constructed in such a manner that

when a packet received from said external module is transmitted, in the case where a transmitting request is issued and a transmission permission is obtained from a destination, said packet is transmitted, and in the case where the transmission permission is not obtained, said packet is stored in a buffer and said unit is set into a transfer waiting state, and

when the transmitting request of the packet is received from another packet transmitting/receiving unit, if said unit is in a packet receivable state, a response of the transmission permission is made and the packet is received, and if said unit is in a packet

unreceivable state, the response of the transmission permission is inhibited,

wherein kinds of packets which are transmitted/received by said packet transmitting/receiving unit are discriminated and the packet is stored into the corresponding packet buffer among a plurality of packet buffers in which priorities have been set in accordance with kinds of packets,

in the transfer waiting state of the packet stored in the packet buffer of the low priority to a certain transmission destination, in the case where the packet to another transmission destination is received from the external module and stored in the packet buffer of the high priority, said packet transmitting/receiving unit withdraws the transfer waiting state of the packet stored in said packet buffer of the low priority and transmits the packet stored in said packet buffer of the high priority, and

in a response inhibiting state of the transmission permission caused by an error of the external module, in the case where the transmitting request of the packet of the highest priority is received, said packet transmitting/receiving unit on the destination makes a response of the transmission permission, receives the internal register access packet, and returns an error detail information packet showing an error state of the external module.

6. (previously presented) A method according to claim 5, wherein in the response inhibiting state of the transmission permission caused by the error of the external module, after the packet transmitting request is received, in the case where said packet transmitting request is withdrawn and the withdrawn packet transmitting request is subsequently again issued, said packet transmitting/receiving unit at said destination determines that the request is the transmitting request of the packet of the highest priority and makes a response of the transmission permission.

7. (cancelled)

8. (previously presented) A packet transmitting/receiving apparatus for a computer system,

wherein a plurality of packet transmitting/receiving units provided in correspondence to external modules are connected via a packet bus, and each of said packet transmitting/receiving units comprises:

a packet transmitting function unit for, when a packet received from said external module is transmitted, in the case where a transmitting request is issued and a transmission permission

is obtained from a transmission destination, transmitting said packet, and in the case where the transmission permission is not obtained, for storing said transmission packet into a buffer and setting said unit into a transfer waiting state, and

a packet receiving function unit for, when a transmitting request is received from another packet transmitting/receiving unit, making a response of the transmission permission in the case where said unit is in a packet receivable state, receiving the packet, and stopping the response of the transmission permission in the case where said unit is in a packet unreceivable state,

and further said packet transmitting function unit comprises:

a transmission packet priority discriminating unit for discriminating whether a kind of packet is an internal register access packet, a response system packet, and a command system packet with respect to the packet received from the external module, if said packet kind is determined to be said internal register access packet, storing said packet into a first packet buffer in which a first priority has been set, if said packet kind is determined to be said response system packet, storing said packet into a second packet buffer in which a second priority has been set, and further, if said packet kind is determined to be said command system packet, storing said packet into a third packet buffer in which a third priority has been set; and

a packet transmitting requesting arbiter for, in the transfer waiting state where the command system packet to a certain transmission destination has been stored in said third packet buffer, in the case where the response system packet to another transmission destination is received from said external module and stored in said second packet buffer, withdrawing the transfer waiting state of the command system packet of the low priority stored in said third packet buffer and transmitting the response system packet of the high priority stored in said second packet buffer, and

said packet receiving function unit comprises:

a reception packet priority discriminating unit for discriminating whether a kind of packet is the internal register access packet, the response system packet, or the command system packet with respect to the packet received from another packet transmitting/receiving unit, if said packet kind is determined to be said internal register access packet, storing said packet into the first packet buffer in which the first priority has been set, if said packet kind is determined to be said response system packet, storing said packet into the second packet buffer in which the second priority has been set, and further, if the packet kind is determined to be said command system packet, storing said packet into the third packet buffer in which the third priority has been set; and

a packet receiving request arbiter for, in a response inhibiting state of said transmission

permission caused by an error of the external module, only in the case where the transmitting request of said internal register access packet of the highest priority is received, making a response of the transmission permission, receiving the internal register access packet, and returning error detail information packet showing an error state of the external module.

9. (previously presented) An apparatus according to claim 8, wherein in the response inhibiting state of said transmission permission caused by the error of the external module, after a packet transmitting request is received from the other transmitting/receiving module, in the case where said packet transmitting request is withdrawn and the withdrawn packet transmitting request is subsequently again issued, said packet receiving request arbiter determines that said request is the transmitting request of said internal register access packet of the highest priority, and makes a response of the transmission permission.

10. (cancelled)

11. (cancelled)